

Appendix I. Figures

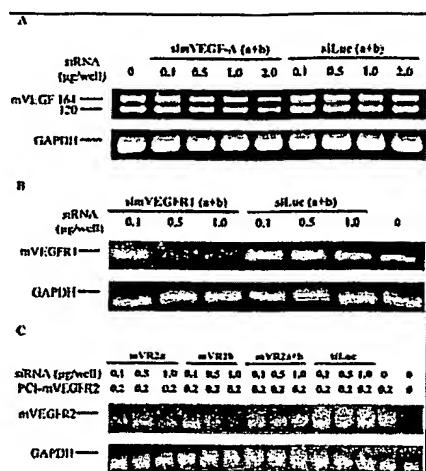


Figure 1.

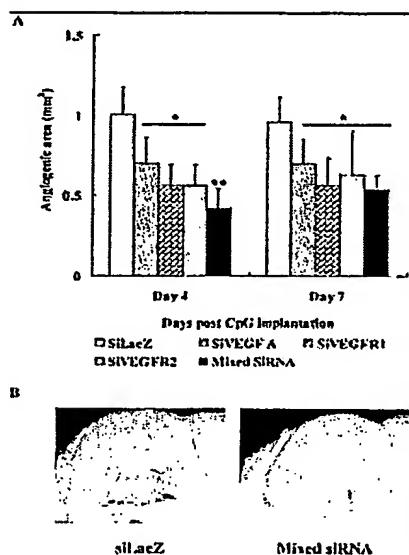


Figure 2.

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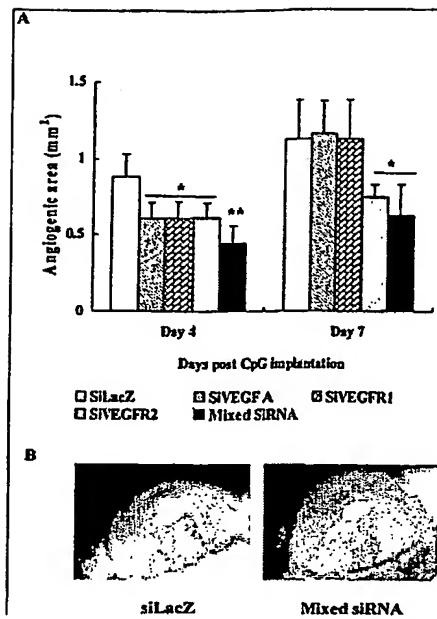


Figure 3.

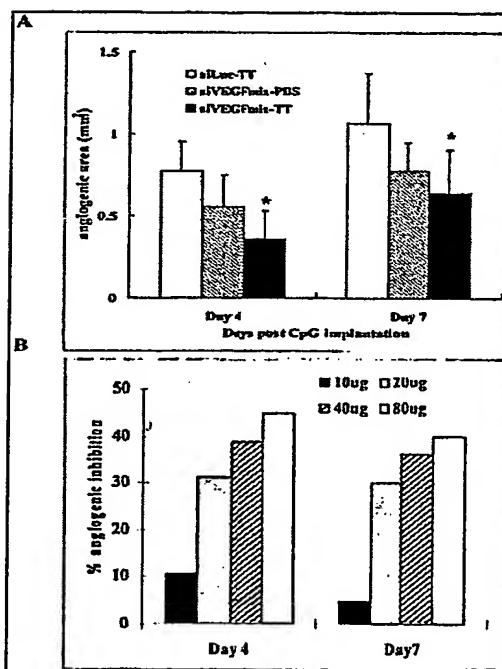


Figure 4.

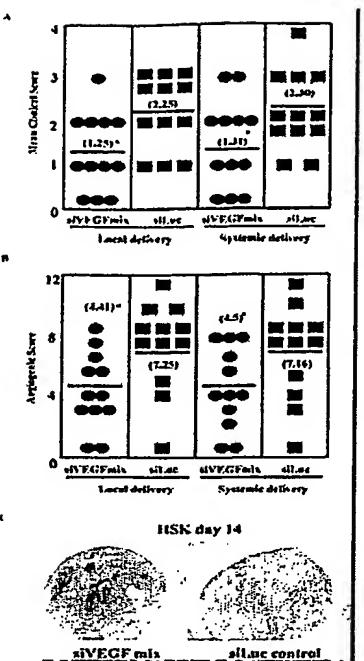


Figure 5.

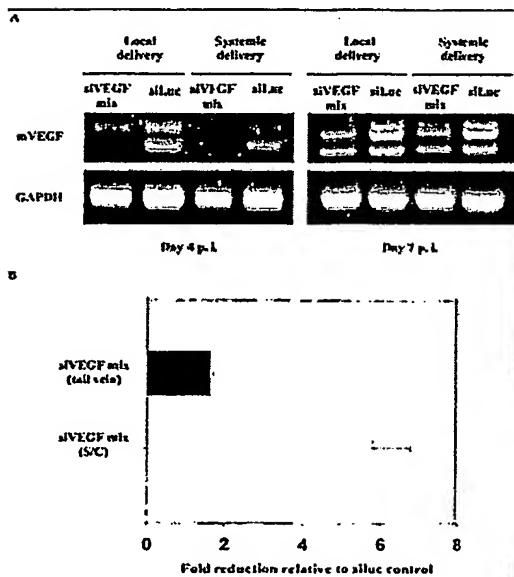


Figure 6.

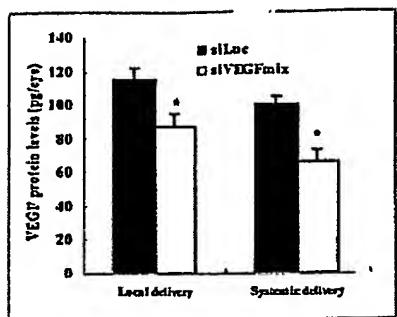


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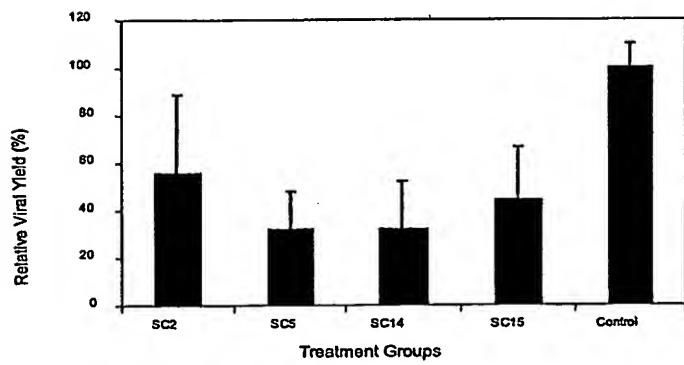


Figure 8.

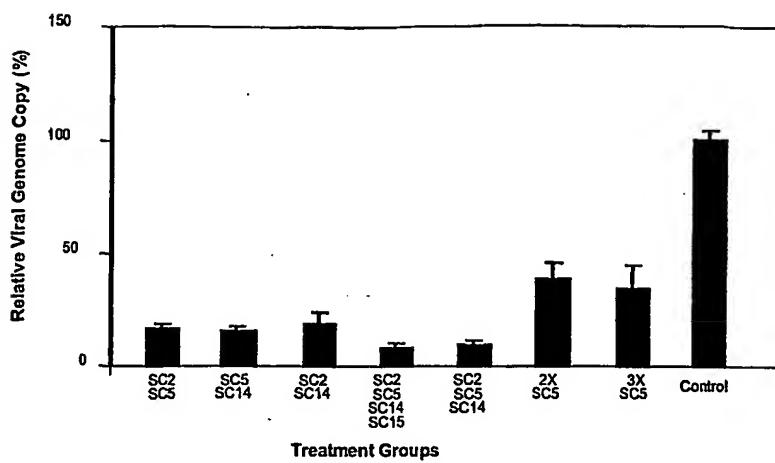


Figure 9.

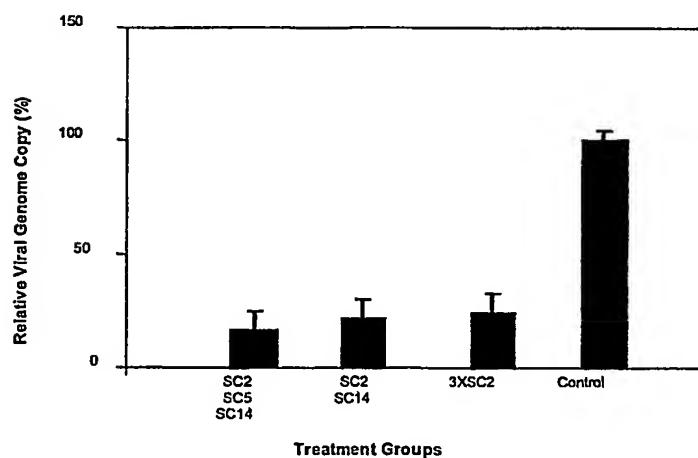


Figure 10.

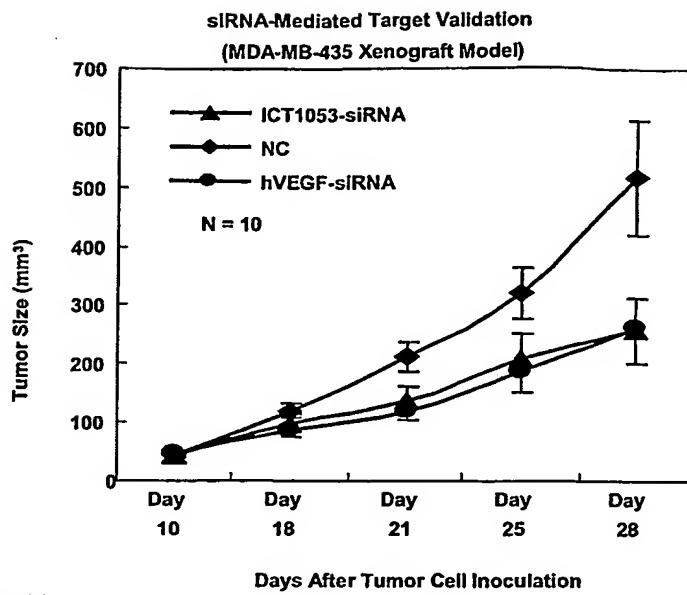


Figure 11.

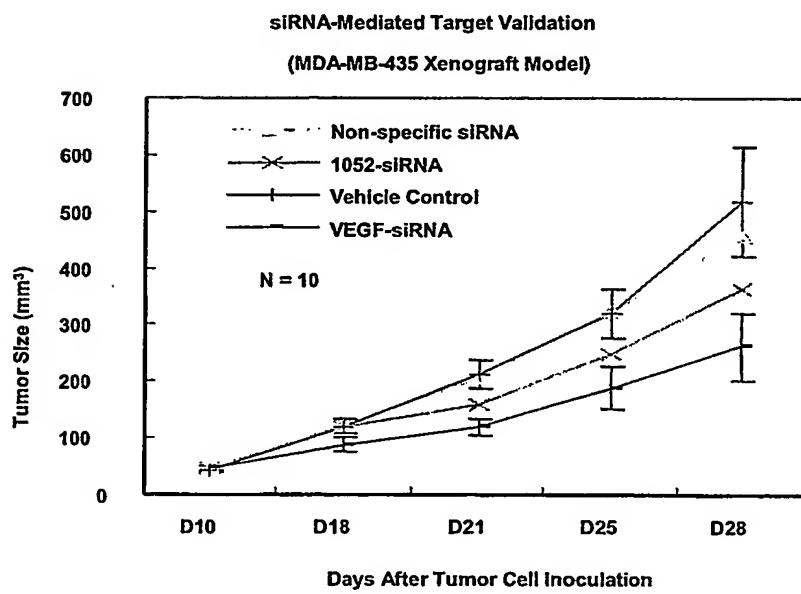


Figure 12.

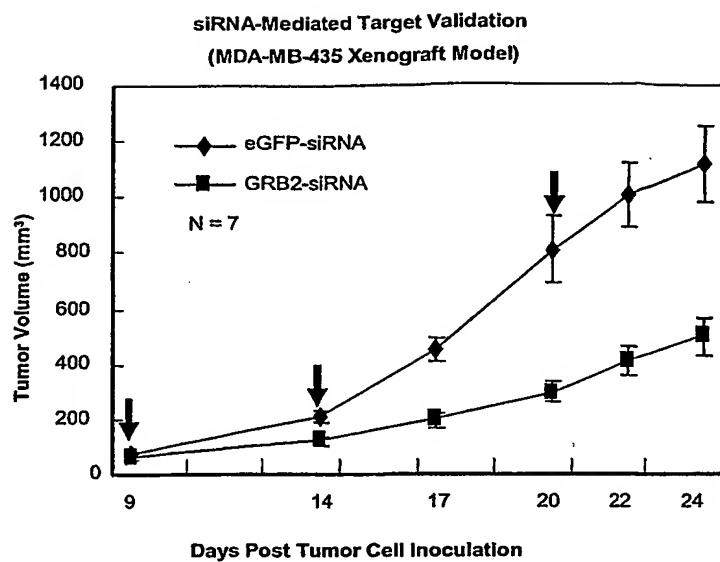


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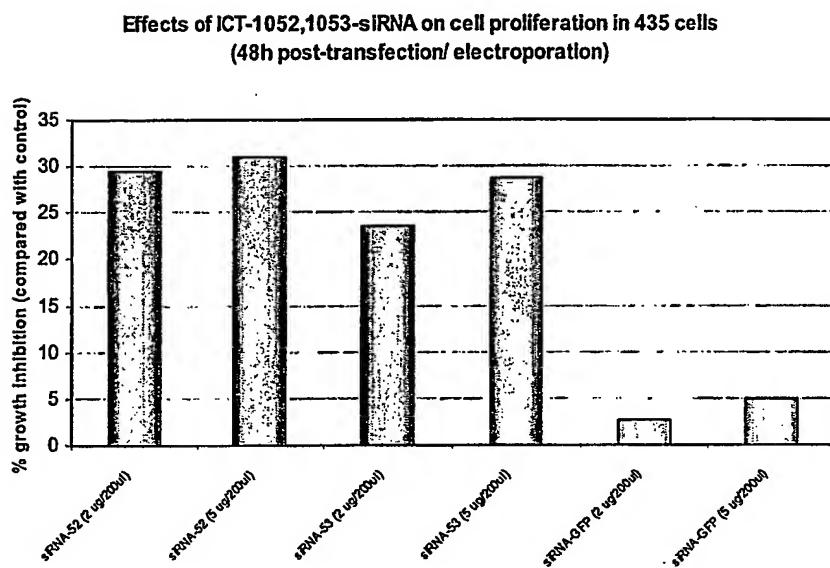


Figure 14.

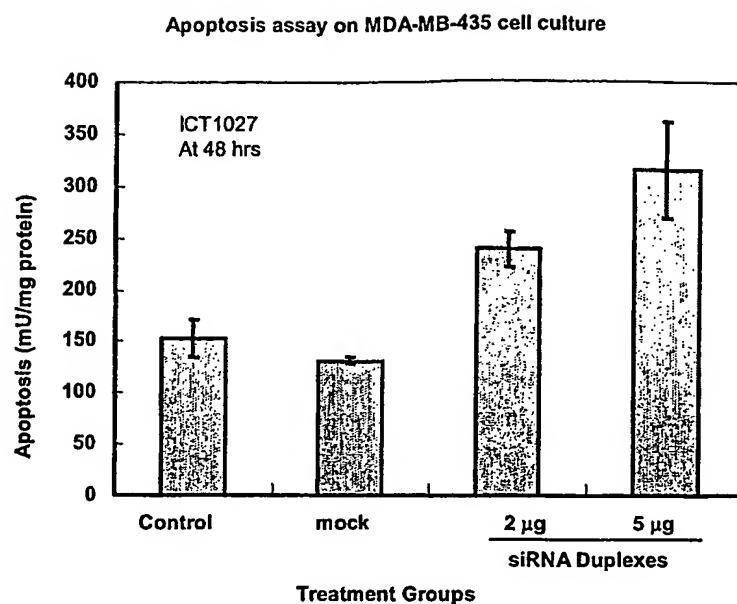
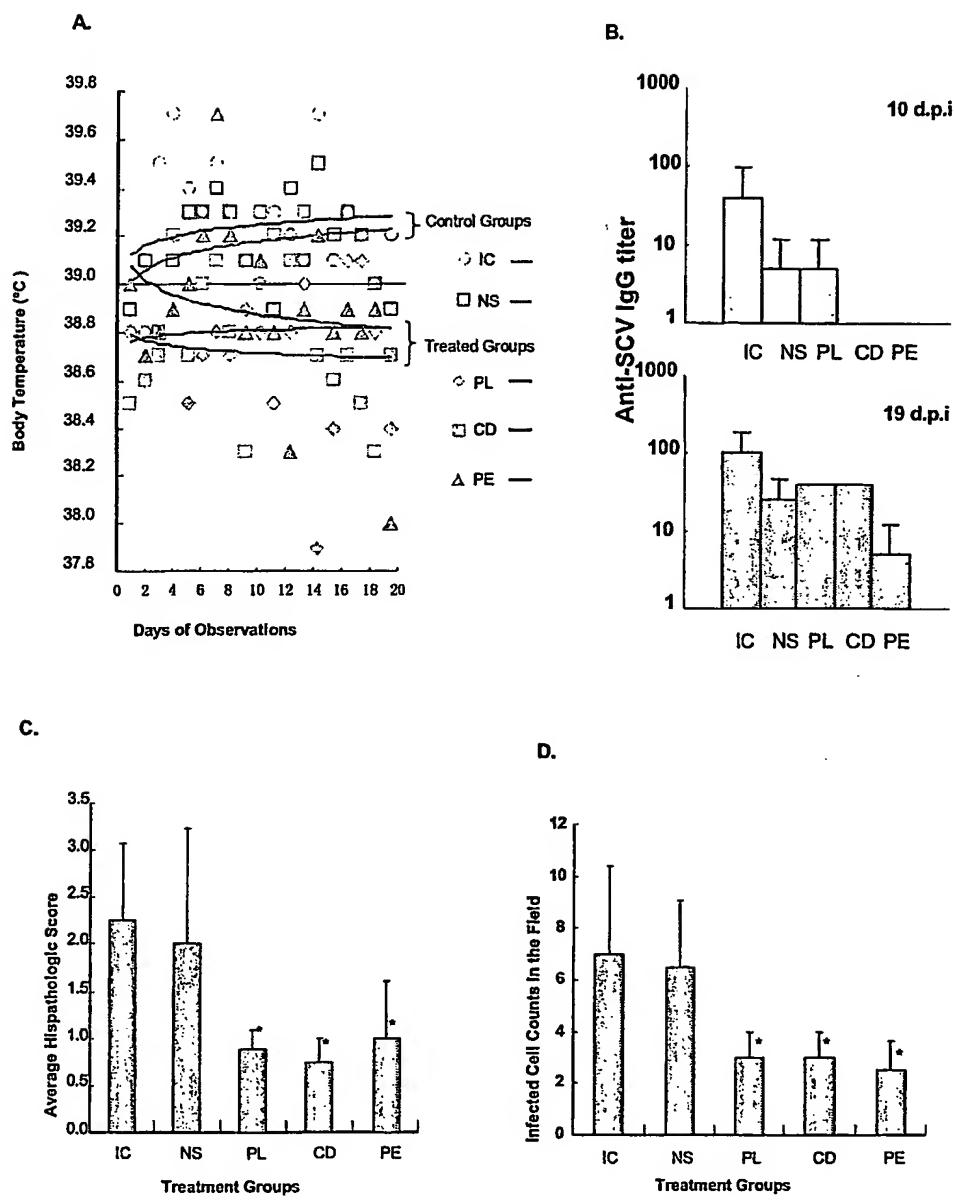


Figure 15.

Figure 16.

Appendix II. siRNA Targeted Sequences for Combinational Use

SS1. VEGF pathway

SS1.1. VEGF-A

VEGF gene: human VEGF, Accession : XM_052681, Gene ID: 14781453, mouse VEGF, Accession: M95200, Gene ID: 202350.

20 siRNA candidates were selected:

#	Position	Sequence
VEGF-A-1	64-84	AAGTGGTCCCAGGCTGCACCC
VEGF-A-2	467-487	AAGATCCGCAGACGTGTAAAT
VEGF-A-3	498-518	AAACACAGACTCGCGTTGCAA
VEGF-A-4	499-519	AACACAGACTCGCGTTGCAAG
VEGF-A-5	517-537	AAGGCGAGGCAGCTTGAGTTA
VEGF-A-6	537-557	AAACGAACGTACTTGCAGATG
VEGF-A-7	538-558	AACGAACGTACTTGCAGATGT
VEGF-A-8	542-564	AACGTACTTGCAGATGTGACA
VEGF-A-9	162-182	AATCGAGACCCCTGGTGGACAT
VEGF-A-10	338-358	AAGGCCAGCACATAGGAGAGA
VEGF-A-11	92-112	AAGGAGGAGGGCAGAACATTC
VEGF-A-12	386-406	AATGCAGACCAAAGAAAGATA
VEGF-A-13	380-400	AATGTGAATGCAGACCAAAGA
VEGF-A-14	301-321	AACATCACCATGCAGATTATG
VEGF-A-15	451-471	AAGCATTGTTGTACAAGAT
VEGF-A-16	116-136	AAGTGGTGAAGTTCATGGATG
VEGF-A-17	401-421	AAGATAGAGCAAGACAAGAAA
VEGF-A-18	421-441	AATCCCTGTGGGCCTGCTCA
VEGF-A-19	379-499	AAATGTGAATGCAGACCAAAG
VEGF-A-20	262-282	AATGACGAGGGCCTGGAGTGT

SS1.2. VEGF-B

VEGF-B gene: human VEGF-B, Accession : NM_003377.3, Gene ID: 39725673

10 siRNA candidates were selected:

#	Position	Sequence
VEGF-B-1	140-160	AAAGTGGTGTCAATGGATAGAT
VEGF-B-2	141-163	AAGTGGTGTCAATGGATAGATG
VEGF-B-3	236-258	AAACAGCTGGTGCCAGCTGC
VEGF-B-4	327-349	AAGTCCGGATGCAGATCCTCA
VEGF-B-5	390-412	AAGAACACAGCCAGTGTGAAT
VEGF-B-6	393-415	AACACAGCCAGTGTGAATGCA
VEGF-B-7	424-446	AAAGGACAGTGCTGTGAAGCC
VEGF-B-8	425-447	AAGGACAGTGCTGTGAAGCCA
VEGF-B-9	440-462	AAGCCAGACAGGGCTGCCACT
VEGF-B-10	670-692	AACCCAGACACCTGCAGGTGC

SS1.3.

VEGF R-1 gene: human VEGF-R1, (hFLT-1), Accession : AF063657, Gene ID: 3132830,

mouse VEGF-R1, (mFLT-1), Accession: D88689, Gene ID: 2809068),
20 siRNA candidates were selected:

#	Position	Sequence
VEGFR1-1	1706-1728	AAGGAGAGGACCTGAAACTGT
VEGFR1-2	2698-2720	AAGCAAGGAGGGCCTCTGATG
VEGFR1-3	2702-2724	AAGGAGGGCCTCTGATGGTGA
VEGFR1-4	2755-2777	AACTACCTCAAGAGCAAACGT
VEGFR1-5	3014-3036	AAGTGGCCAGAGGCATGGAGT
VEGFR1-6	3048-3070	AAAGTGCATTCATCGGGACCT
VEGFR1-7	3049-3071	AAGTGCATTCATCGGGACCTG
VEGFR1-8	2140-2160	AGCACGCTGTTATTGAAAGA
VEGFR1-9	568-588	AAGGGCTTCATCATATCAAAT
VEGFR1-10	215-235	AAAGGCTGAGCATAACTAAAT
VEGFR1-11	2352-2372	AAGGTCTTCTTCTGAAATAAA
VEGFR1-12	3517-3537	AATGCCATACTGACAGGAAAT
VEGFR1-13	1190-1210	AAGAGGATGCAGGGATTATA
VEGFR1-14	834-854	AAGGCGACGAATTGACCAAAG
VEGFR1-15	89-109	AAGATCCTGAACTGAGTTAA
VEGFR1-16	216-236	AAGGCTGAGCATAACTAAATC
VEGFR1-17	3429-3449	AAGGCCAAGATTGCAGAACT
VEGFR1-18	967-987	AACACCTCAGTGCATATATAT
VEGFR1-19	567-587	AAAGGGCTTCATCATATCAA
VEGFR1-20	1938-1958	AATCCTCCAGAAGAAAGAAAT

SS1.4.

VEGF R-2 gene: human VEGF-R2, (hKDR), Accession : AF063658, Gene ID: 3132832, mouse VEGF-R2, (mFLK-1), Accession: X70842, Gene ID: 57923), 20 siRNA candidates were selected:

#	Position	Sequence
VEGFR2-1	523-545	AACAGAACATTCCCTGGGACAGC
VEGFR2-2	2387-2409	AACTGAAGACAGGCTACTTGT
VEGFR2-3	2989-3011	AAGGACTTCCTGACCTGGAG
VEGFR2-4	3032-3054	AAGTGGCTAACGGCATGGAGT
VEGFR2-5	3040-3062	AAGGGCATGGAGTTCTGGCA
VEGFR2-6	3401-3423	AAATGTACCAAGACCATGCTGG
VEGFR2-7	3632-3654	AATTCCATTATGACAACACAG
VEGFR2-8	3676-3698	AACAGTAAGCGAAAGAGCCGG
VEGFR2-9	3641-3661	ATGACAACACAGCAGGAATCA
VEGFR2-10	357-377	AAGCTCAGCACACAGAAAGAC
VEGFR2-11	493-513	AATGCCGGCGGTGGTGACAGTA
VEGFR2-12	1837-1857	AATGCCACCATGTTCTTAAT
VEGFR2-13	2969-2989	AAGCTCCTGAAGATCTGTATA
VEGFR2-14	2549-2569	AAGCAGATGCCTTGGATTG
VEGFR2-15	3906-3926	AAGCGGCTACCAGTCCGGATA

VEGFR2-16	2941-2961	AAGTCCCTCAGTGATGTAGAA
VEGFR2-17	304-324	AAGTGCTTCTACCGGGAAACT
VEGFR2-18	2862-2882	AATCCCTGTGGATCTGAAACG
VEGFR2-19	130-150	AAGGCTAATACAACCTTCAA
VEGFR2-20	1204-1224	AATCCCATTCAAAGGAGAAG

SS2. EGF Pathway**SS2.1.**

EGF gene: Human EGF, Accession: NM_001963, Gene ID: 6031163.

20 siRNA candidates were selected:

#	Position	Sequence
EGF-1	2042-2062	AAGTGGATAGAGAGAGCTAAT
EGF-2	3873-3893	AAGGCTGCTGGATTCCAGTAT
EGF-3	2426-2446	AAGCAGTCTGTGATTGAAATG
EGF-4	2621-2641	AAGCCCTCATCACTGGTTGTG
EGF-5	1273-1293	AAAGGACATGGTTAGAATTAA
EGF-6	2328-2348	AAGGCCTGGCCGTCTGGTTA
EGF-7	174-194	AAGGGTGTCAAGTATTCTTA
EGF-8	3922-3942	AATGGAGCGAACAGCTTCATAT
EGF-9	1496-1516	AAGTACTGTGAAGATGTTAAT
EGF-10	1274-1294	AAGGACATGGTTAGAATTAAAC
EGF-11	531-551	AAGGTACTCTCGCAGGAAATG
EGF-12	2686-2706	AAACGGAGGCTGTGAACATAT
EGF-13	2263-2283	AATGGCCAAGAGATTATTCTG
EGF-14	1292-1312	AACCTCCATTTCATCATTTGTA
EGF-15	261-281	AAGGTCTCTCAGTTGAAGAAA
EGF-16	3218-3238	AATGCCAGCTGCACAAATACA
EGF-17	1019-1039	AAGGCTCTGTTGGAGACATCA
EGF-18	2576-2596	AAGAGGAAGTGGCAAAGATAGA
EGF-19	760-780	AAGGCAAGAGAGAGATGTAA
EGF-20	765-785	AAGAGAGAGTATGTAATATAG

SS2.2.

EGF R gene: Human EGF-R, Accession: NM_005228, Gene ID: 41327737), mouse EGF-R, Accession : NM_207655, Gene ID: 46560581, 5 siRNA candidates were selected:

#	Position	Sequence
EGFR-1	483-505	AAAGACCATCCAGGAGGTGGC
EGFR-2	2869-2889	AAAGTGCCTATCAAGTGGATG
EGFR-3	2870-2890	AAGTGCCTATCAAGTGGATGG
EGFR-4	3751-3771	AACCCTGACTACCAGCAGGAC
EGFR-5	3755-3775	CTGACTACCAGCAGGACTTCT

SS2.3.

HER-2 gene: Human HER-2, Accession: M11730, Gene ID:183986, mouse HER-2, Accession : BC053078, Gene ID: 31419374, 5 siRNA candidates were selected:

#	Position	Sequence
HER2-1	1255-1275	AAGATCTTGGGAGCCTGGCA
HER2-2	1253-1273	AAGAAGATCTTGGGAGCCTG
HER2-3	2797-2817	AAGGTGCCCATCAAGTGGATG
HER2-4	3019-3039	AAATGTTGGATGATTGACTCT
HER2-5	3805-3825	AACCTCTATTACTGGGACCAG

SS2.4.

HER-3 gene: Human HER-3, Accession: M34309, Gene ID:183990, mouse HER-3, Accession : XM_125954, Gene ID: 38091004, 13 siRNA candidates were selected:

#	Position	Sequence
HER3-1	678-698	AATTGACTGGAGGGACATCGT
HER3-2	1264-1284	AAGATCCTGGCAACCTGGAC
HER3-3	1537-1557	AAGGAAATTAGTGCTGGCGT
HER3-4	2404-2424	AAGATTCCAGTCTGCATTAAA
HER3-5	2857-2877	AAATACACACACCAGAGTGAT
HER3-6	2858-2878	AATACACACACCAGAGTGATG
HER3-7	3770-3790	AAGATGAAGATGAGGAGTATG
HER3-8	3776-3796	AACCTCTATTACTGGGACCAG
HER3-9	1118-1138	CTGACAAGATGGAAGTAGATA
HER3-10	1119-1139	TGACAAGATGGAAGTAGATAA
HER3-11	2402-2422	TCAAGATTCCAGTCTGCATTA
HER3-12	2403-2423	CAAGATTCCAGTCTGCATTAA
HER3-13	2805-2825	TGAGGCCAAGACTCCAATTAA

SS2.5.

HER-4 gene: Human HER-4, Accession: NM_005235, Gene ID:4885214,
mouse HER-4, Accession : XM_136682, Gene ID: 38049556.
7 siRNA candidates were selected:

#	Position	Sequence
HER4-1	462-482	AAATGGTGGAGTCTATGTAGA
HER4-2	463-483	AATGGTGGAGTCTATGTAGAC
HER4-3	731-751	AATGTGCTGGAGGCTGCTCAG
HER4-4	838-860	AATCCAACCACCTTCAACTG
HER4-5	1227-1247	AACAGGTTCTGAACATACA
HER4-6	1450-1470	AACTGGACAAACACTCTTCAGC
HER4-7	1909-1929	AACGGTCCCCTAGTCATGAC

SS3. FGF Pathway**SS3.1.**

FGF-2 gene: Human FGF-2 (basic FGF), Accession: NM_002006, Gene ID: 41352694.
20 siRNA candidates were selected:

#	Position	Sequence
FGF-2-1	630-650	AAGAGCGACCCCTCACATCAAG
FGF-2-2	661-681	AAGCAGAAGAGAGAGGAGTTG
FGF-2-3	849-869	AAACGAACTGGGCAGTATAAA
FGF-2-4	880-900	AAACAGGACCTGGGCAGAAAAG
FGF-2-5	854-874	AACTGGCAGTATAAAACTTGG
FGF-2-6	648-668	AAGCTACAACCTCAAGCAGAA
FGF-2-7	850-870	AACGAACTGGCAGTATAAAC
FGF-2-8	881-901	AACAGGACCTGGGCAGAAAGC
FGF-2-9	667-687	AAGAGAGAGGAGTTGTCTA
FGF-2-10	723-743	AAGGAAGATGGAAGATTACTG
FGF-2-11	734-754	AAGATTACTGGCTTCTAAATG
FGF-2-12	781-801	AACGATTGGAATCTAATAACT
FGF-2-13	690-710	AAAGGAGTGTGCTAACCGT
FGF-2-14	818-838	AAGGAAATACACCAGTTGGTA
FGF-2-15	804-824	AATACTTACCGGTCAAGGAAA
FGF-2-16	750-770	AAATGTGTTACGGATGAGTGT
FGF-2-17	822-842	AAATACACCAGTTGGTATGTG
FGF-2-18	655-675	AACTCAAGCAGAAGAGAGAG
FGF-2-19	823-843	AATACACCAGTTGGTATGTGG
FGF-2-20	798-818	AACTACAATACTTACCGGTCA

SS3.2.

FGF-1 gene: Human FGF-1 (acidic FGF),
transcript variant 1, Accession: NM_000800, Gene ID: 15055546;
transcript variant 2, Accession: NM_033136, Gene ID: 15055540;
transcript variant 3, Accession: NM_033137, Gene ID: 15055544.
20 siRNA candidates were selected:

#	Position	Sequence
FGF-1-1	447-467	AAGGCTGGAGGGAGAACCATTA
FGF-1-2	214-234	AAGCCCAAACCTCCTACTGT
FGF-1-3	190-210	AATCTGCCTCCAGGGAATTAC
FGF-1-4	114-134	AAGCGCCACAAGCAGCAGCTG
FGF-1-5	484-504	AAGAACGATGCAGAGAAGAAT
FGF-1-6	539-559	AACCGGGTCCCTCGGACTCACT
FGF-1-7	460-480	AACCATTACAAACACCTATATA
FGF-1-8	97-117	AAGCTCTTAGTCTGAAAGC
FGF-1-9	469-489	AACACCTATATATCCAAGAAG
FGF-1-10	221-241	AACTCCTCTACTGTAGCAACG
FGF-1-11	288-308	AAGGGACAGGAGCGACCAGCA
FGF-1-12	487-507	AAGCATGCAGAGAAGAATTGG
FGF-1-13	113-133	AAAGCGCCACAAGCAGCAGCT
FGF-1-14	502-522	AATTGGTTGTTGGCCTCAAG
FGF-1-15	520-540	AAGAAGAATGGGAGCTGCAA
FGF-1-16	211-231	AAGAAGCCCCAAACTCCTCTAC
FGF-1-17	538-558	AAACCGGGTCCCTCGGACTCAC
FGF-1-18	526-546	AATGGGAGCTGCAAACGCGGT
FGF-1-19	220-240	AAACTCCTCTACTGTAGCAAC
FGF-1-20	424-444	AATGAGGAATGTTGTTCCCTG

SS3.3.

FGFR2 gene: Human FGFR2

transcript variant 1, Accession: NM_000141, Gene ID: 13186239;
 transcript variant 2, Accession: NM_022969, Gene ID: 13186252;
 transcript variant 3, Accession: NM_022970, Gene ID: 13186254.
 transcript variant 4, Accession: NM_022971, Gene ID: 13186256;
 transcript variant 5, Accession: NM_022972, Gene ID: 13186258;
 transcript variant 6, Accession: NM_022973, Gene ID: 13186260.
 transcript variant 7, Accession: NM_022974, Gene ID: 13186262;
 transcript variant 8, Accession: NM_022975, Gene ID: 27754768;
 transcript variant 9, Accession: NM_022976, Gene ID: 13186266.
 transcript variant 10, Accession: NM_023028, Gene ID: 13186268;
 transcript variant 11, Accession: NM_023029, Gene ID: 13186242;
 transcript variant 12, Accession: NM_023030, Gene ID: 13186270.
 transcript variant 13, Accession: NM_023031, Gene ID: 13186272;
 20 siRNA candidates were selected:

#	Position	Sequence
FGFR2-1	1368-1388	AAGCCGGACTGCCGGCAAATG
FGFR2-2	2610-2630	AAGCCCTGTTGATAGAGTAT
FGFR2-3	2088-2108	AAGCAGTGGGAATTGACAAAG
FGFR2-4	2297-2317	AAAGGCAACCTCCGAGAATAC
FGFR2-5	1753-1773	AATCGCCTGTATGGTGGTAAC
FGFR2-6	2010-2030	AATGGGAGTTCCAAGAGATA
FGFR2-7	699-719	AAGAGCCACCAACCAAATACC
FGFR2-8	2843-2863	AAGCAGTTGGTAGAAGACTTG
FGFR2-9	1187-1207	AAGCAGGAGCATCGCATTGGA
FGFR2-10	1082-1102	AAGCGGCTCCATGCTGTGCCT
FGFR2-11	1557-1577	AAGAGATTGAGGTTCTCTATA
FGFR2-12	1771-1791	AACAGTCATCCTGTGCCGAAT
FGFR2-13	2762-2782	AAGCCAGCCAATGCACCAAC
FGFR2-14	1178-1198	AAGGAGTTAACGCAGGAGCAT
FGFR2-15	2151-2171	AAGATGATGCCACAGAGAAAG
FGFR2-16	2745-2765	AAGGACACAGAATGGATAAGC
FGFR2-17	1171-1191	AAACGGGAAGGAGTTAACCA
FGFR2-18	1222-1242	AAACCAGCACTGGAGCCTCAT
FGFR2-19	2732-2752	AAGCTGCTGAAGGAAGGACAC
FGFR2-20	1556-1576	AAAGAGATTGAGGTTCTCTAT

SS3.4.

FGFR1 gene: Human FGFR1

transcript variant 1, Accession: NM_000604, Gene ID: 13186232;
 transcript variant 2, Accession: NM_015850, Gene ID: 13186250;
 transcript variant 3, Accession: NM_023105, Gene ID: 13186233.
 transcript variant 4, Accession: NM_023106, Gene ID: 13186235;
 transcript variant 5, Accession: NM_023107, Gene ID: 13186237;
 transcript variant 6, Accession: NM_023108, Gene ID: 13186240.
 transcript variant 7, Accession: NM_023109, Gene ID: 13186244;
 transcript variant 8, Accession: NM_023110, Gene ID: 13186246;
 transcript variant 9, Accession: NM_023111, Gene ID: 13186248.

20 siRNA candidates were selected:

#	Position	Sequence
FGFR1-1	2701-2721	AACGGCCGACTGCCTGTGAAG
FGFR1-2	2275-2295	AAGTCGGACGCAACAGAGAAA
FGFR1-3	2422-2442	AAGGGCAACCTGCAGGGAGTAC
FGFR1-4	2255-2275	AAGTGGCTGTGAAGATGTTGA
FGFR1-5	2319-2339	AATGGAGATGATGAAGATGAT
FGFR1-6	2237-2257	AACCCAACCGTGTGACCAAAG
FGFR1-7	2887-2907	AAGCCCAGTAAC TGACCAAC
FGFR1-8	1540-1560	AACGTGGAGTTCATGTGTAAG
FGFR1-9	2236-2256	AAACCCAACCGTGTGACCAAAG
FGFR1-10	2332-2352	AAGATGATCGGGAAGCATAAG
FGFR1-11	1153-1173	AACACCAAACCAAACCGTATG
FGFR1-12	1303-1323	AATGGCAAAGAATTCAAACCT
FGFR1-13	2905-2925	AACGAGCTGTACATGATGATG
FGFR1-14	1636-1656	AACCTGCCTTATGTCCAGATC
FGFR1-15	2857-2877	AAGCTGCTGAAGGAGGGTCAC
FGFR1-16	1596-1616	AAAGCACATCGAGGTGAATGG
FGFR1-17	2230-2250	AAGGACAAACCAAACCGTGTG
FGFR1-18	2968-2988	AAGCAGCTGGTGGAAAGACCTG
FGFR1-19	2254-2274	AAAGTGGCTGTGAAGATGTTG
FGFR1-20	1444-1464	AACCACACATACCAGCTGGAT

SS3.5.

FGFR3 gene: Human FGFR3, Accession: M58051, Gene ID: 182568
 transcript variant 1, Accession: NM_000142, Gene ID: 13112046;
 transcript variant 2, Accession: NM_022965, Gene ID: 13112047;
 20 siRNA candidates were selected:

#	Position	Sequence
FGFR3-1	1969-1989	AACCTCGACTACTACAAGAAG
FGFR3-2	1627-1647	AAGATGATCGGGAAACACAAA
FGFR3-3	1588-1608	AAGGACCTGTCGGACCTGGTG
FGFR3-4	865-885	AAGGTGTACAGTGACGCACAG
FGFR3-5	2263-2283	AAGCAGCTGGTGGAGGACCTG
FGFR3-6	652-672	AAGCTCGGGCATCAGCAGTGG
FGFR3-7	1540-1560	AAGCCTGTCACCGTAGCCGTG
FGFR3-8	1571-1591	AAGACGATGCCACTGACAAGG
FGFR3-9	1321-1341	AACGCGTCCATGAGCTCCAAC
FGFR3-10	1297-1317	AAGCGACAGGTGTCCCTGGAG
FGFR3-11	2191-2211	AACTGCACACACGACCTGTAC
FGFR3-12	994-1014	AAGGAGCTAGAGGTTCTCTCC
FGFR3-13	1570-1590	AAAGACGATGCCACTGACAAG
FGFR3-14	982-1002	AACACCACCGACAAGGAGCTA
FGFR3-15	1873-1893	AAGTGCATCCACAGGGACCTG
FGFR3-16	331-351	AATGCCTCCCACGAGGACTCC
FGFR3-17	1813-1833	AAGGACCTGGTGTCCCTGTGCC
FGFR3-18	2152-2172	AAGCTGCTGAAGGAGGGCCAC
FGFR3-19	1723-1743	AACCTCGGGAGTTCTGCGG
FGFR3-20	265-285	AAGGATGGCACAGGGCTGGTG

SS3.6.

FGFR4 gene: Human FGFR4, Accession: L03840, Gene ID: 182570
transcript variant 1, Accession: NM_002011, Gene ID: 47524172;
transcript variant 2, Accession: NM_022963, Gene ID: 47524176;
transcript variant 3, Accession: NM_213647, Gene ID: 47524174;
20 siRNA candidates were selected:

#	Position	Sequence
FGFR4-1	726-746	AAGGATGGACAGGCCTTCAT
FGFR4-2	2403-2423	AAGGTCTGCTGGCCGTCTCT
FGFR4-3	1743-1763	AAGCTGATCGGCCGACACAAG
FGFR4-4	1085-1105	AAAGACTGCAGACATCAATAG
FGFR4-5	292-312	AAGAGCAGGAGCTGACAGTAG
FGFR4-6	1657-1677	AAGCCAGCACTGTGGCCGTCA
FGFR4-7	753-773	AACCGCATTGGAGGCATTGG
FGFR4-8	1833-1853	AAGGGAAACCTGCGGGAGTTC
FGFR4-9	1392-1412	AAGCTCTCCCGCTTCCCTCTG
FGFR4-10	1078-1098	AAGTCCTAAAGACTGCAGACA
FGFR4-11	1692-1712	AACGCCTCTGACAAGGACCTG
FGFR4-12	604-624	AAGCACCCCTACTGGACACACC
FGFR4-13	1086-1106	AAGACTGCAGACATCAATAGC
FGFR4-14	1686-1706	AAAGACAACGCCTCTGACAAG
FGFR4-15	666-686	AACACCGTCAAGTTCCGCTGT
FGFR4-16	1454-1474	AAGCTCATCCCTGGTACGAGG
FGFR4-17	984-1004	AAGGTGTACAGCGATGCCAG
FGFR4-18	1687-1707	AAGACAACGCCTCTGACAAGG
FGFR4-19	1764-1784	AACATCATAACCTGCTTGGT
FGFR4-20	504-524	AATCTCACCTTGATTACAGGT

SS4. HGF pathway**SS4.1.**

HGF Receptor gene: Human HGF receptor (MET), Accession: NM_000245,
Gene ID: 42741654:

#	Position	Sequence
MET-1	341-361	AACACCCATCCAGAATGTCAT
MET-2	505-525	AAGCCAATTATCAGGAGGTG
MET-3	1494-1514	AAGTCCTCTTAACATCTATAT
MET-4	1021-1041	AATCAGGTTCTGTTCCATAAA
MET-5	2723-2743	AAGCCAGTGATGATCTCAATG
MET-6	3929-3949	AAGTGGATGGCTTGAAAGT
MET-7	3747-3767	AAGTAGCCAAAGGCATGAAAT
MET-8	1066-1086	AATGCCCTCTGGAGTGATTCT
MET-9	281-301	AAGTCCGAGATGAATGTGAAT
MET-10	2111-2131	AATGGCCACGGGACAACACAA
MET-11	1682-1702	AATGGCTACACACTGGTTATC
MET-12	2722-2742	AAAGCCAGTGATGATCTCAAT
MET-13	838-858	AAGGCTAAAGGAAACGAAAGA
MET-14	3154-3174	AAGCCCAACTACAGAAATGGT
MET-15	1681-1701	AAATGGCTACACACTGGTTAT
MET-16	1382-1402	AATAGGACACTTCTGAGAAAT
MET-17	734-754	AAAGTCCTTCATCTGTAAAG
MET-18	1364-1384	AATCATGAGCACTGCTTTAAT
MET-19	2529-2549	AAGCAGGAAGGAACCTTACAG
MET-20	334-354	AACACCCATCCAGAATGTCAT

SS5. Other Pathways-1**SS5.1.**

PAK4-1

AACTTCGAGCACC CGTGCAC

PAK4-2

AAGACCATCGTGC GGGGG CAGC

Hepsin-A

AAGGTGGCAGCTCTCACTGCG

Hepsin-B

AACAGCGAGGAACAGCAAC

Antrogen R-A

AAGACCTACCGAGGGAGCTTC

Antrogen R-B

AAGAGACTAGCCCCAGGCAGC

SS5.3.

HP BRCA2-A		AAGTCAACCACAGAGTCGTAT	247-268
HP BRCA2-B		AAGTAACGAGTGAGCCACGCT	215-235
NOXA-A		AAGTCGAGTGTGCTACTAAC	238-258
NOX		AACTGAACCTCCGGCAGAAC	277-297
Novel ZF Protein		AATGCAGAGAACACTAATTAT	345-365
Novel ZF Protein		AACTTCCATAAAATGTGAAATC	381-401
NFAT4		AAGTGATACTCCCCCCTCAGC	726-746
NFAT4		AAGTAGCTGGCACTACGGGCA	752-772
Co-factor of SP1		AATCAGGTTCCAATGTGATGA	200-221
Co-factor of SP1		AAGGCTTAGCTCCCAAGCCTC	145-165
Ets2 Repressor		AAGGCAGATCCAGCTGTGGCA	194-214
Ets2 Repressor		AAGCCAGAGTCGTCCCCTGGC	171-191
PKC related		AAGTCTTCCGTTTCTGAGAA	69-89
PKC related		AATGGTGCAGCAGAAATTGGA	126-136
PKC eta		AAGAAGGCCACCAAGCTGCTG	269-289
PKC eta		AACGTCACCGACGGCGGCCAC	389-409
Mitochondrial F0		AACCTGGGCAGAAGAGGAGA	164-184
Mitochondrial F0		AACTGAAACGGATTGCCAGAG	211-231
Bcl-2 TF		AAGAAGCGATACAGGTCTCGT	91-111
Bcl-2 TF		AAGGTCTCGTAGTAGAGATCG	126-146
Bcl-2 A1		AACCTGGATCAGGTCCAAGCA	257-277
Bcl-2 A1		AATCTGAAGTCATGCTTGGAC	334-354
RAP1		AACAGAGGAGGACTACATTCC	267-287
RAP1		AACCACGAAATACCAGCATC	379-399

SS5.4.

Hpv-16E6	AAGTTACCAGATTATGCACA
Hpv-16E6	AACAGTTACTGCGACGTGAGG
Hpv-16E7	AATATATGTTAGATTGCAAC
Hpv-16E7	AATAGATGGTCCAGCTGGACA
Hpv-18E6	AACACGGCGACCCTACAAGCT
Hpv-18E6	AACTTACAGAGGTATTGAAT
Hpv-18E7	AAGGCAACATTGCAAGACATT
Hpv-18E7	AATAGATGGAGTTAATCATCA

SS5.5.

DICER -A	AB028449	AATGGGTCCTTCTTGACT
DICER -B		AACTGCTTGAAGCAGCTCTGG
MD2 PROTEIN-A	NM_015364	AAGCTCAGAACAGTATTGGG
MD2 PROTEIN-B		AATGCAATAACCAATTCAAT
GAGE-2-A	U19143	AATGATTGGGCCTATGCGGCC
GAGE-2-B		AAGTGGAACCAAGCAACACCTG
BREAST TA 84-A	NM_015966	AAGACTTGGAGGACTCCGG
BREAST TA 84-B		AAGTCGCGGGGAGATAACTG
EGFR-RP-A	AK026010	AAGCTGGACATTCCCTCTGCG
EGFR-RP-B		AAGAGCCCAGCTCCTGCAGC
ENDOPLASMIN 94-A	AK025862	AACTGTTGAGGAGCCCATGGA
ENDOPLASMIN 94-B		AATCTGATGATGAAGCTGCAG
FOLATE BP-A	AF000381	AACCGCGGT CCTATTCCATTA
FOLATE BP-B		AAACACTCCAATTTCAAAGT
RALA BP-A	NM_006788	AACACCGCAGGGTGGAGCATG
RALA BP-B		AAGAGATCAGCCCTACTAAGT
GRB2 BP-A	BC000631	AAGGGGGACATCCTCAAGGT
GRB2 BP-B		AATCCCCAGAGCCAAGGCAGA
CDR-62-A	L02867	AAGCGCCAGGCCCGCGTGGG
CDR-62-B		AAGAGGAGTCCTGGTACGACC
A-RAF-A	U33821	AAGAGTTACCTCCTAATGCA
A-RAF-B		AAGATTGGTTGGTATATTCA
NOVEL-1-A	NM_017873	AATCCTTGTCTCACTGAGCT
NOVEL-1-B		AAGATGGCTGAGCTGGGCTG
MAC30-A	L19183	AACCGACAGACTATGGGGCT
MAC30-B		AACCTGCTGAAGTGGTATGCT
GRANULIN -A	NM_002087	AACCGCGGTGCCAGATGGTCA
GRANULIN -B		AATGGCCCACAACACTGAGCA
HCA ANTI. 58-A	NM_016436	AAGTGGGAGCCCAGTTGGAAG

HCA ANTI. 58-B		AAGACATTGACTACGAGGAAG
MI2-BETA-A	NM_001273	AATGAAGAGGACCCAGAAGAG
MI2-BETA-B		AAGCCTAACGAAACCTCGGGAC
EGF FACTOR 8-A	NM_005928	AACCCCTGCCACAACGGTGGT
EGF FACTOR 8-B		AACCACGTGAGACGAAATGT
APRIL-A	AK090698	AACTGCCCGAGCGATCTCTGC
APRIL-B		AACCTAATTCTCCTGAGGCTG
PGF PRECURSOR-A	AK023843	AAGAGTGACACTGTGGCTTC
PGF PRECURSOR-B		AATGGGCTGAGCTGCTGCTCC
MELA. ANTIGEN-A	AB014518	AATCAGCTAACACTGTCCCTC
MELA. ANTIGEN-B		AAGGAGACAGTACTGAGTGCC
RALA B. PROTEIN-A	NM_006788	AACACCGCAGGGTGGAGCATG
RALA B. PROTEIN-B		AAGAGATCAGCCCTACTAAGT

SS6. siRNA Target Sequence for RSV

SS6.1.

Gene targets common to subgroups A and B (strains B1 and 9230 of RSV)

Target gene*	Sequence (5' to 3')**	Position on A2 (M734568)	Position on B1 (NC-001781)	Position on 9230 (AY353550)
Leader/NS1 (-) strand	AATGGGGCAAATAAGAATTG	42-62	42-62	42-62
Leader/NS1	AATGGGGCAAATAAGAATTg	42-62	42-62	42-62
N	AAGATGGCTCTTAGCAAAGTc	1137-1157	1137-1157	1135-1155
P	AATTCCCTAGAACATCAATAAGg	2401-2421	2403-2423	2401-2421
M	AAGCTTCACGAAGGCTCCACA	3279-3299	3281-3301	3279-3299
SH	NA			
G	NA			
F	AATGATATGCCTATAACAAAt	6444-6464	6449-6469	6447-6467
M2	AAGATAAGAGTGTACAATACT	7975-7995	7987-8007	7986-8006
M2/L	NA			
L	AACATCCTCCATCATGGTTAA	9090-9110	9101-9121	9100-9120
L	AAGTACTAATTAGCTGGACA	12973-12993	12984-13004	12983-13003
L	AAGATTGCAATGATCATAGTT	14133-14153	14144-14164	14143-14163
L	AACATTCAATTGGTCTTATTAA	14243-14263	14254-14274	14253-14273

SS6.2.

Gene targets specific for subgroup A (Strains A2 & F/P of Long strains of RSV)

Target gene	Sequence (5' to 3')*	Position in A2 genome (M734568)
Leader (-) strand	AAATGCGTACAACAAACTTGC	9-29
Leader	AACAAACTTGCATAAACCAAA	19-39
NS1	AAGAATTGATAAGTACCACT	54-74
NS1	AACTAACGCTTGGCTAAGGC	209-229
NS2	AATAAATCAATTAGCCAACC	602-622
NS2	AACTATTACACAAAGTAGGAA	830-850
N	AACAAAGATCAACTCTGTCA	1176-1196
N	AAGAAATGGGAGAGGTAGCTC	1558-1578
P	AATTCAACTATTATCAACCCA	2520-2530
P	AACAATGAAGAAGAACCCAGC	2676-2696
M	AAATAAAGATCTGAACACACT	3770-3790
M	AAATATCCACACCCAAGGGAC	3442-3462
M	AAATAAAGATCTGAACACACT	3770-3790
SH	AACATAGACAAGTCCACACAC	4266-4286
SH	AACAATAGAATTCTCAAGCAA	4320-4340
G	AAACAAGGACCAACGCACCGC	4696-4716
G	AACTTCACTTATAATTGCAGC	4840-4860
F	AAATAAGTGTAAATGGAACAGA	5858-5878
F	AAACAATCGAGCCAGAAGAGA	5969-5989
M2	AAATAAGTGGAGCTGCAGAGT	7781-7801
M2	AACAATCAGCATGTGTTGCCA	7880-7900
M2/L	NA	
L	AAGTTACATATTCAATGGTCC	8593-8613
L	AACTAAATATAACACAGTCCT	8685-8905
Trail	NA	

SS6.3.

Gene targets specific for subgroup B (Strains B1 and 9320)

Target gene	Sequence (5' to 3')*	Position in B1 genome (NC-001781)	Position in 9320 genome (AY353550)
Leader (-) strand	AATGCGTACTACAAACTTGCA	10-30	10-30
Leader	AAATGCGTACTACAAACTTGC	9-29	9-29
NS1	AATTAATTCTTCTGACCAATG	196-216	196-216
NS1	AACAAGCAGTGAAGTGTGCC	278-298	278-298
NS2	AATAATAACATCTCACCAA	700-720	700-720
NS2	AATGTATTGGCATTAAGCCTA	936-956	936-956
N	AAATAAGGATCAGCTGCTGTC	1175-1195	1173-1193
N	AACAAACTATGTGGTATGCTA	1272-1292	1270-1290
P	AATAAAGGGCAAGTTCGCATC	2416-2436	2414-2434
P	AACAAATGACAACATTACAGC	2725-2745	2723-2743
M	AATATGGGTGCCTATGTTCCA	3361-3381	3359-3379
M	AACATACTAGTGAAGCAGATC	3428-3448	3426-3446
SH	AAATACATCCATCACAAATAGA	4308-4328	4306-4326
SH	AAACATTCTGTAACAATACTC	4445-4465	4443-4463
G	AATCTATAGCACAAATAGCAC	4796-4816	4794-4814
G	AATATTCATCATCTCTGCCAA	4866-4886	4864-4884
F	AAAGAAACCAAATGCAATGGA	5858-5878	5856-5876
F	AAACAAAGCTGTAGTCAGTCT	6187-6207	6185-6205
M2	AAATAAGTGGAGCTGCTGAAC	7793-7813	7792-7812
M2	AACAAATCAGCATGTGTTGCTA	7892-7912	7892-7911
M2/L	NA		
L	AAATAACATCACAGATGCAGC	9591-9611	9590-9610
L	AATACCTACAACAGATGGCCC	9931-9951	9930-9950
Trail	NA		

SS7

SS7.1. siRNA targeted sequences for SARS coronavirus inhibition

Name	Coding Region	Position (nt)	Sequence (5'-3')
SC07	5' UTR	146-166	aacgagtaactcgcccttt
SC08	ORF1a, nsp-1	594-614	aattgcataccgcaatgttct
SC06	ORF1a, nsp-3	2721-2741	aaccttggagaagatactgt
SC03	ORF1a, nsp-3	2772-2792	aatcacatttagcttgatga
SC09	ORF1a, nsp-3	3236-3256	aacctacacctaagaaccagg
SC10	ORF1a, nsp-3	4172-4192	aaggatgtgctggttatacac
SC11	ORF1a, nsp-3	5758-5778	aaaggaccagtgactgatgtt
SC12	ORF1a, nsp-3	8096-8116	aagggttgtttagtaccgatg
SC13	ORF1a, nsp-6	11074-11094	aagcacgcattcttgcttg
SC05	ORF1b, nsp-12	13530-13550	aaggatgaggaaggcaattta
SC01	ORF1b, nsp-12	13603-13623	aagagactattataacttgg
SC16	ORF1b, nsp-12	14758-14778	aactcctattcgtagttgaag
SC17	ORF1b, nsp-13	16756-16776	aaggtgactatggtgatgctg
SC14	ORF1b, nsp-13	17544-17564	aaggataagttagctcaatgc
SC18	ORF1b, nsp-14	18264-18284	aacctaccttcaggacttagga
SC15	ORF1b, nsp-16	20843-20863	aactggcacactacttgcga
SC02	ORF2, Spike	21553-21573	aagctcctaattacactcaac
SC04	ORF2, Spike	21669-21689	aatgttacagggtttcatact
SC19	ORF2, Spike	22068-22088	aagggctatcaacctataagat
SC20	ORF2, Spike	22289-22309	aatcacagatgctgttatttgc
SC21	ORF2, Spike	22951-22971	aaccttacaggtttagtac
SC22	ORF2, Spike	23272-23292	aagatgttaactgcactgatg
SC23	ORF2, Spike	24871-24891	aagagctggacaagttacttca
SC37	ORF3a	25330-25350	aagtaactgttcatgtacagc
SC38	ORF3a	25599-25619	aatgcataacgcatacgtagaa
SC39	ORF3a	25618-25638	aattattatgagatgtggct
SC40	ORF3a	25764-25784	aaggtaacggcatttcaacac
SC41	ORF3a	25805-25825	aaattactacagacactggta
SC42	ORF3a	25929-25949	aaaatgctacattttcatct
SC43	ORF3a	25984-26004	aatacacacaatcgacggctc
SC24	ORF4, E-protein	26121-26141	aagaaacaggtacgtaatag
SC25	ORF4, E-protein	26137-26157	aatagttaatagcgtaattct
SC34	ORF4, E-protein	26170-26190	aagcacattgacgcataaaaa
SC26	ORF4, E-protein	26219-26139	tgtgcgtactgctgcaatatt
SC36	ORF4, E-protein	26230-26250	aagactgatgaagctcagcct
SC27	ORF4, E-protein	26307-26327	aaggagttctgtatcttctgg
SC28	ORF5, M-protein	26440-26460	aacctagtaataggtttctta
SC29	ORF5, M-protein	26628-26648	aatggcttgtattgttaggctt
SC30	ORF5, M-protein	26760-26780	aattgtgaccagacgcctcat
SC33	ORF5, M-protein	26789-26809	aaccagcttgagagcaaagtt
SC31	ORF5, M-protein	26876-26896	aagagatcaactgtggctacat
SC32	ORF5, M-protein	26968-26988	aaccgctaccgtattggaaac
SC44	ORF7	27355-27375	aaccttgcccattcaggAACAT
SC45	ORF7	27425-27445	aacttgcactagcacacactt
SC46	ORF7	27541-27561	aagagctctactcgccacttt
SC47	ORF9a, N-protein	28176-28196	aactgacaataaccagaatgg
SC48	ORF9a, N-protein	28355-28375	aaattggctactaccgaagag

SC35	ORF9a, N-protein	28904-28924	aacagtacaacgtcactcaag
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SS8, TNF pathway**TNF pathway****SS8.1.**

TNF gene: human TNF (synonyms: DIF, TNFA, TNFSF2, TNF-alpha),

Accession : NM_000594, Gene ID: 25952110

10 siRNA candidates were selected:

#	Position	Sequence
hTNF-1	428-448	AAGCCTGTAGCCCATGTTGTA
hTNF-2	512-532	AATGGCGTGGAGCTGAGAGAT
hTNF-3	671-691	AACCTCCTCTGCCATCAAG
hTNF-4	533-553	AACCAGCTGGTGGTGCCATCA
hTNF-5	731-751	AAGCCCTGGTATGAGCCCATC
hTNF-6	497-517	AATGCCCTCCTGGCCAATGGC
hTNF-7	779-899	AAGGGTGACCGACTCAGCGCT
hTNF-8	181-201	AAGCATGATCCGGGACGTGGA
hTNF-9	665-685	AAGGTCAACCTCCTCTGCC
hTNF-10	180-200	AAAGCATGATCCGGGACGTGG

SS8.2.

hTNFR1 gene: human TNF receptor, 1A (synonyms: TNFRSF1A, FPF, p55, p60, TBP1, TNF-R, TNFAR, TNFR1,p55-R, CD120a, TNFR55, TNFR60, TNF-R-I, TNF-R55, MGC19588), Accession : NM_001065, Gene ID: 23312372

20 siRNA candidates were selected:

#	Position	Sequence
hTNFR1-1	666-686	AAGAACCACTACCGGCATTAT
hTNFR1-2	1005-1025	AAGCTCTACTCCATTGTTGT
hTNFR1-3	1320-1340	AAGCCACAGAGCCTAGACACT
hTNFR1-4	841-861	AAAGCCTGGAGTGCACGAAGT
hTNFR1-5	472-492	AAGGAACCTACTTGTACAATG
hTNFR1-6	714-734	AATTGCAGCCTCTGCCCTCAAT
hTNFR1-7	605-625	AATGGGTCAAGGTGGAGATCTC
hTNFR1-8	669-689	AACCAGTACCGGCATTATTGG
hTNFR1-9	471-491	AAAGGAACCTACTTGTACAAT
hTNFR1-10	462-482	AA GTGCCACAAAGGAACCTAC
hTNFR1-11	604-624	AAATGGGTCAAGGTGGAGATCT
hTNFR1-12	810-830	AACGAGTGTGTCTCTGTAGT
hTNFR1-13	888-908	AAGGGCACTGAGGACTCAGGC
hTNFR1-14	809-829	AAACGAGTGTGTCTCTGTAG
hTNFR1-15	991-1011	AACGGTGGAAAGTCCAAGCTCT
hTNFR1-16	768-788	AACACCGTGTGCACCTGCCAT
hTNFR1-17	732-752	AATGGGACCGTGCACCTCTCC
hTNFR1-18	1089-1109	AACCCAAGCTTCAGTCCCAC
hTNFR1-19	476-496	AACCTACTTGTACAATGACTG
hTNFR1-20	444-464	AATTGATTGCTGTACCAAG

SS8.3.

hTNFR2 gene: human TNF receptor, 1B (synonyms: TNFRSF1B, p75, TBPII, TNFBR, TNFR2, CD120b, TNFR80, TNF-R75, p75TNFR, TNF-R-II),
Accession : NM_001066, Gene ID: 23312365. 20 siRNA candidates were selected:

#	Position	Sequence
hTNFR2-1	844-864	AAGGGAGCACTGGCGACTTCG
hTNFR2-2	957-977	AAGCCCTTGTGCCTGCAGAGA
hTNFR2-3	412-432	AAGCCTGCACTCGGGAACAGA
hTNFR2-4	1362-1382	AAGGAGGAATGTGCCTTCGG
hTNFR2-5	294-314	AAGACCTCGGACACCGTGTGT
hTNFR2-6	351-371	AACTGGGTTCCCGAGTGCTTG
hTNFR2-7	784-804	AACCCAGCACTGCTCCAAGCA
hTNFR2-8	1301-1321	AATGGGAGACACAGATTCCAG
hTNFR2-9	979-1099	AAGCCAAGGTGCCTCACTTGC
hTNFR2-10	914-934	AATAGGAGTGGTGAACTGTGT
hTNFR2-11	1227-1247	AATGTCACCTGCATCGTGAAC
hTNFR2-12	600-620	AACACGACTTCATCCACGGAT
hTNFR2-13	1288-1308	AAGCCAGCTCCACAATGGGAG
hTNFR2-14	432-452	AACCGCATCTGCACCTGCAGG
hTNFR2-15	984-1004	AAGGTGCCTCACTTGCCTGCC
hTNFR2-16	800-820	AAGCACCTCCTCCTGCTCCC
hTNFR2-17	954-974	AAGAAGCCCTGTGCCTGCAG
hTNFR2-18	1245-1265	AACGTCTGTAGCAGCTCTGAC
hTNFR2-19	1369-1389	AATGTGCCTTCGGTCACAGC
hTNFR2-20	776-796	AACTCCAGAACCCAGCACTGC

SS8.4.

mouse IL-1b	AGGCTCCGAGATGAACAACAA
mouse IL-1b	TACCTGTCCTGTGTAATGAAA
mouse IL-1r	ACCATCGAGGTTACTAATGAA
mouse IL-1r	TCGGAATATCTCCCATCATAA
mouse IL-1a	TCGGGAGGAGACGACTCTAAA
mouse IL-1a	CCAGAGTGATTGAGATACAA
mouse IL-1r2	CACGTTATCTCGGCTGCTTA
mouse IL-1r2	AAGACTGATAGTCCCGTGCAA
mouse TNF receptor a	AAGGAAAGTATGTCCATTCTA
mouse TNF receptor a	CCGCAACGTCCCTGACAATGCA
mouse TNF receptor b	CCAGGTTGTCTTGACACCCCTA
mouse TNF receptor b	CTGGCTATTCCCGGAAATGCA

mouse TNF

CACGTCGTAGCAAACCACCAA

mouse TNF

CAGCCGATTGCTATCTCATA

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